Application #_____

City of Salem
COMMUNITY DEVELOPMENT
TENANT LAYOUT, ALTERATION & REPAIR
Commercial Plans Checklist

PROJECT NAME _____

This must be completed and signed on Page 7, by the designer(s) who prepared and compiled the plans. Please submit the Checklist with the plans; address any questions to plans review staff at 540.375-3036. There is a ten (10) business day review period for commercial plan reviews beginning the day after submission to the permit office. **THIS CHECKLIST MAY BE WAIVED FOR MINOR PROJECTS AS DEEMED APPROPRIATE BY THIS OFFICE ON A CASE-BY-CASE BASIS**

This basic Checklist indicates the minimum essential building code information required on construction documents prior to submitting them as part of the building permit application package. Providing all the information listed will expedite the overall review process and increase the likelihood that plans will be approved on the first submission

Complete all plans in accordance the Virginia Construction Code(VCC) with current amendments and all applicable referenced standards. As an alternative for alterations/repair and change of occupancy classifications the designer is permitted to use the provisions of VCC Section 103.1.1 for the Virginia Existing Building Code. On the Coversheet, list codes used for project design. **All submittals must be logged in through the Community Development Office.**

GENERAL REQUIREMENTS

- ❑ Completed ***Building Permit Application*** and ***Trade Permit Application*** as needed
- ❑ Completed ***Statement of Special Inspections*** forms where applicable
- ❑ Completed ***Accessibility Compliance Statement*** form for alterations to existing structures
- ❑ Completed ***Asbestos Abatement Certification*** form for alterations to existing structures
- ❑ Two paper sets and one electronic copy of construction documents. The construction documents must be drawn with sufficient clarity and detail to illustrate the nature and character of the work to be performed and must meet the requirements of or show the items listed below. Construction documents must be stamped by a Registered Design Professional. Required forms are available at the Building Inspections page of the Community Development website at www.salemva.gov.
- ❑ Projects for new construction, remodeling, expansion, or changing of equipment for Public Swimming Pools, Restaurants and any projects with foodservice facilities, require a separate permit application to the Alleghany/Roanoke City Health District, **1502 Williamson Road NE | Roanoke, VA 24012 | Phone: (540) 204-9764 | Fax: (540) 857-7315**
- ❑ Filing Fee – See www.salemva.gov under Forms on the Building Inspection website.

Virginia Uniform Statewide Building Code, section 111.1 requires that each sheet of C,A,S,M,E,P, etc. is signed and dated by the designer licensed in Virginia responsible for the drawings:

- **In accordance with 18VAC10-20-760, drawings that are prepared by a registered design professional must bear professional seal on all sheets, signature is required and date within seal**
- **Contractors, as permitted by Section 54.1-402 of the Code of VA, list license number, occupation, name, address, telephone number; sign and date**

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ARCHITECTURAL PLAN REQUIREMENTS

- ❑ Full narrative required for entire scope of work.
- ❑ Minimum acceptable scale for Detail drawings is 1/8 inch = 1 foot or a metric scale of 1:100
- ❑ All drawings must be prepared in ink or equivalent
- ❑ Minimum plan sheet size is 21" x 30"
- ❑ The full name of proposed tenant, full address of project, name and Use Group of the previous tenant
- ❑ Complete demolition plans showing all walls, fixtures, devices, etc. to be removed; clearly identify new work and existing elements proposed to remain
- ❑ Building drawings must include information on Zoning Use and Parcel ID number

All shop drawings prepared by contractors, fabricators, manufacturers, etc. must be approved by RDP in responsible charge of project and be available on-site for inspections. Shop drawings used by tradesmen to obtain permits must bear approval from RDP, prior to submission to our office.

Building Code Summary/Code Analysis

- ❑ Key Plan: include building or shopping center name; identify space(s) to be occupied by the tenant; locate fire walls/barriers and show square foot size of fire areas; list Use Group of adjacent tenants
- ❑ Code and edition used for the design.
- ❑ Use Group per Chapter 3; Construction Type per Chapter 6
- ❑ Building Height; Number of Stories; Building Square Footage, per Chapter 5
- ❑ Occupant load calculations, per Chapter 10 for <u>total</u> and for <u>each</u> space
- ❑ Number of exits required and provided/ Maximum Travel Distances shown per Chapter 10
- ❑ Compliance with Mixed Occupancy requirements and design methods per Chapter 5
- ❑ Whether or not the building is provided with fire suppression and supervision/monitoring per Chapter 9. Indicate if manual, automatic, or partial fire alarm system is provided per Ch. 9.
- ❑ Locations of all Portable Fire Extinguishers, per VCC and Virginia Statewide Fire Prevention Code (VSFP) Chapters 9
- ❑ Incidental Use Area compliance with VCC table 508.2

Architectural Plans, Elevations, Sections, Details

- ❑ ❑ Label all rooms/spaces with names/number designation
- ❑ ❑ Number all doors
- ❑ ❑ Door schedule including door number, size, type, latching, closers, hardware and fire rating in hours. *Note: Security hardware systems designed to interface with fire alarm systems must be detailed including sequencing*
- ❑ ❑ Partition Types; reference fire resistance rating as applicable; show on plan view locations of various partitions
- ❑❑ Roof plan with roof slope, high points, low points, location of mechanical units, location of drains and scuppers
- ❑ ❑ Dimensions of corridors and aisle widths
- ❑❑ Floor to ceiling height and height from floor to underside of lowest structural member
- ❑❑ Interior finishes; flame spread/smoke developed index per Chapter 8
- ❑❑ Details of all ramps and stairs with required handrails, guardrails and landings
- ❑❑ Floor elevations with changes in floor level
- ❑❑ Coordinate the electrical plan showing exit access, exit and exit discharge lighting per Section 1006.3, and egress lighting per Chapter 10, or make reference to applicable electrical sheet.
- ❑❑ Materials used for temporary demising walls, etc. used during construction

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Fire Rated Construction

Y N/A

- ❑❑ Locate fire resistive rated construction for fire walls/barriers/partitions, horizontal assemblies, shaft walls and smoke barriers/partitions and fire resistive hourly rating
- ❑❑ Locate fire walls on building footprint of civil drawings
- ❑❑ Reference fire resistive rated assembly listing source (i.e., UL, FM, IBC table 720.1 item #), key into Partition Type(s)
- ❑❑ Incorporate complete listing design of UL, FM, etc., fire resistive system(s) into drawings
- ❑❑ Include details for all through penetration firestop systems, per IBC Section 712; permitted to be a contractor shop drawing submittal on-site
- ❑❑ Include details for all fire resistant joint systems, per VCC section 713; permitted to be a contractor shop drawing submittal on-site
- ❑❑ Section details of all rated construction showing Chapter 7 compliance including continuity and supporting construction where applicable

Accessibility Requirements

Y N/A

- ❑❑ General:
  Listing of all required signage. Identification of specific service areas, counters, checkout aisles, dressing rooms, toilets, point of sale and food service lines. Accessibility for levels above or below grade
- ❑❑ Exterior:
  Accessible parking, other locations of public access to the facility, accessible exterior routes and locations of accessible entrances. Plans must indicate the intended grade for accessible routes
- ❑❑ Interior:
  Accessible routes to primary function areas are provided. Accessible hardware, fixtures and other specialty items, features or facilities clearly identified. Identification of accessible means of egress including areas of refuge
  Wheelchair turning space, clear floor space, knee and toe clearances
  Elevations of all accessible fixtures and equipment to show height compliance

FIRE PROTECTION PLAN REQUIREMENTS

Y N/A

- ❑❑ Systems below are to be identified on the construction drawings; specific design and detailed shop drawings of such systems are to be submitted for separate review and permit.
- ❑❑ Fire pump(s) and or Water Storage Tank(s)
- ❑❑ Automatic Sprinkler System(s)
- ❑❑ Standpipe System(s)
- ❑❑ Fire alarm System(s)
- ❑❑ Emergency and Standby Power System(s)
- ❑❑ Elevator Installation and Operation
- ❑❑ Stairwell/Elevator Shaft Pressurization
- ❑❑ Smoke Evacuation System(s) (see Mechanical Plan requirements below)
- ❑❑ Range Hood Fire Suppression System(s) (see Mechanical Plan requirements below)
- ❑❑ Other Specialized Detection and Alternative Fire Suppression system(s).
- ❑❑ Medical Gas System(s)
- ❑❑ Petroleum and Liquefied Petroleum Gas (LPG) storage tank and distribution system(s)
- ❑❑ Underground / Above Ground Storage Tank(s) (see Mechanical Plan requirements below)
- ❑❑ Hazardous Exhaust System(s)
- ❑❑ A list of all hazardous chemicals, liquids, or other materials to be used, handled or stored in the space. Specify the quantity of the materials to be used, handled or stored. Specify the storage method, e.g., metal drums, glass bottles, plastic jugs, or cardboard boxes
- ❑❑ Fixture details, e.g., shelving, racks, stock/storage for high-piled and rack storage

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All shop drawings prepared by contractors, fabricators, manufacturers, etc. must be approved by RDP in responsible charge of project and be available on-site for inspections. Shop drawings used by tradesmen to obtain permits must bear approval from RDP, prior to submission to our office.

STRUCTURAL PLAN REQUIREMENTS

Note: All plans, technical reports and calculations shall bear the original seal, signature and date of a registered design professional where applicable with the Code of Virginia (see general req.)

General:

Y N/A

- ❑❑ Identify any load bearing walls, columns or beams that are being disturbed.
- ❑❑ Identify roof loads that have been increased by the addition of new or replacement mech. equip.
- ❑❑ Structural plans and associated schedules of any new work that describes/details accurately all new structural components and elements
- ❑❑ Provide general design loads that are changed as a result of new tenant, use or classification
  - **Floor live load**; this shall include any live load reduction factors
  - **Roof live load**
  - **Roof snow load:** flat-roof snow load (*Pf*), snow exposure factor (*Ce*), snow load importance factor (*I*), and thermal factor (*Cr*). The ground snow load for is 30 PSF.
  - **Wind load:** basic wind speed, wind load importance factor (*I*), building category, wind exposure, internal pressure coefficient, wind design pressure, and components and cladding wind pressures. The wind speed for City of Salem is 115 mph ($_{V3s}$)
  - **Earthquake design data:** seismic use group, spectral response, site class, basic seismic-force-resisting system, design base shear, and analysis procedure
  - **Special equipment loading.** Roof mounted HVAC, etc.
  - **Specify deflection limits**, VCC table 1604.3

All shop drawings prepared by contractors, fabricators, manufacturers, etc. for pre-fabricated structures, tilt-up panels, pre-stressed members, pre-cast members, roof trusses/joists and floor trusses/joists, etc. must be approved by RDP in responsible charge of project and be available on-site for inspections

MECHANICIAL PLAN REQUIREMENTS

Y N/A

- ❑❑ Minimum required mechanical facilities per Virginia Mechanical Code
- ❑❑ Symbol and abbreviation list identifying all components of the proposed changes to mechanical system(s)
- ❑❑ One (1) copy of calculations and information demonstrating compliance with ASHRAE standard 90.1 (energy standard for all buildings except low-rise residential). The signed and sealed print-out of the above standard's computer program is acceptable.
- ❑❑ Details for boilers showing all required safety devices. **(Note: All commercial boilers subject to Sections 36-98 and 40.1-51.6 must be inspected by Virginia Department of Labor & Ind.)**
- ❑❑ Fire and smoke dampers and fire/smoke detection devices
- ❑❑ Location and type of required ventilation hoods and associated suppression systems
- ❑❑ For smoke removal/control systems, a sequence of operation and a narrative description of the functioning of the smoke purge system, a broad conceptual outline of how the system is designed to function under a variety of possible fire conditions, upper floor involvement, atriums and other areas. Show the inter relationship among fire alarm systems, suppression systems and emergency power
- ❑❑ Fuel piping in building

❑❑ Duct and/or piping layout for the HVAC system, with the following also shown:
- Main trunk and branch sizes
- Size of all registers; indicate the cfm (l/s) at each register

Location of all equipment and outside air intake and exhaust air opening locations

❑❑ Complete equipment data for changes the HVAC system to include make and model number, BTU (KWH) rating for heating and cooling, cfm (l/s) capacity, minimum and maximum outside air cfm (l/s), and energy efficient ratings (e.g., EER, COP, ATF, Combustion Efficiency, etc.)

❑❑ Gas piping changes shown on riser diagram and floor plan with fully developed length, design pressure of gas, total quantity of gas to be provided, specific gravity, pressure drop and the type of gas piping with the correct sizing per IFGC

ELECTRICAL PLAN REQUIREMENTS

Y N/A

❑❑ Minimum required electrical facilities per National Electrical Code

❑❑ Clear, legible electrical floor plan showing changes to lighting fixtures and schedules, symbol legend, equipment schedules, receptacle locations and all branch circuits. Number the branch circuits and identify each branch circuit's home-run

❑❑ Changes to service riser diagrams where including:
- Size of feeder conductors and insulation types, conduits and overcurrent protection.
- Connections and sizes of emergency or stand-by generators. If the generator neutral will be switched, provide a main grounding at the generator
- Fire and jockey pumps
- Rating of the transformers (KVA), primary and secondary conductor sizes, voltage levels, grounding conductor sizes, (stating "grounding per NEC" is not enough information) and the primary and secondary overcurrent protection sizes
- Size of motors, air-conditioners and their branch circuit conductors and overcurrent protection
- Main grounding at the service to include type of main grounding electrodes, type of supplementary grounding electrodes, size of the electrode grounding conductors and where they terminate at the service location. (Stating "grounding per NEC" is insufficient.)

❑❑ Exit, emergency and battery pack lighting locations and branch circuits

❑❑ Size, location and identification of all new and existing electrical panels and equipment

❑❑ All panel schedules must include the following:
- Size of panels, phases and voltage levels
- Breaker/fuse and conductor sizes of each branch circuit
- Size of the panel's main circuit breakers or fuses
- Indicate if panels are main circuit breakers (MCB) or main lugs only (MLO). If MLO, provide the size of the main overcurrent protection that protects the feeders that supply the MLO panels
- Load calculations in KVA, kW or ampere. Break the loads into total connected and demand loads, continuous and non-continuous loads. (Indicating only the branch circuit, circuit breaker, or fuse sizes does not constitute load calculations).
- Identify the loads connected to each panel, branch circuit, circuit breaker, or fuse

❑❑ Provide NEC-compliant load calculations for feeders and service including demands per NEC Article 220

❑❑ Provide documents with calculations to show compliance with International Energy Conservation Code for lighting per Section 805.5; or show compliance with ASHRAE 90.1

PLUMBING PLAN REQUIREMENTS

Y N/A

❑❑ Minimum required plumbing facilities per Virginia Plumbing Code

❑❑ Floor plans (plan view) and riser diagrams showing the location of all plumbing fixtures, sanitary, water, storm and gas piping. Identify size, slope and type of piping material and location of all

required valves

- ❑❑ Fixture connection schedule including waste, vent, gas, hot and cold water connection sizes. Identify all fixture symbols used on the plans and risers. Include backflow preventer(s) and other water control equipment
- ❑❑ Identify required grease and oil traps and/or interceptors and indicate method of sizing
- ❑❑ Water distribution pipe sizing calculations for engineered systems
- ❑❑ The location and type of all backflow prevention devices provided for each piece of equipment or outlet and the specified quality control standards referenced in the code
- ❑❑ Plans showing demolition shall identify the location of cap offs and points of connection of new piping to existing piping
- ❑❑ On-site private utilities that are not intended to be conveyed to the local utility authority are required to be designed and installed according to the International Plumbing Code and have inspections performed by the Inspection Office. Design details for such private utility systems are to be included with the architectural submittal

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LEAD DESIGN PROFESSIONAL (NAME):_____

LEAD DESIGN PROFESSIONAL (SIGNATURE):_____

DESIGNER	FIRM/CORP.	NAME	LICENSE #	TELEPHONE#	EMAIL
Architectural	_____	_____	_____	(____)_____	_____
Civil	_____	_____	_____	(____)_____	_____
Fire Protection	_____	_____	_____	(____)_____	_____
Structural	_____	_____	_____	(____)_____	_____
Mechanical	_____	_____	_____	(____)_____	_____
Electrical	_____	_____	_____	(____)_____	_____
Plumbing	_____	_____	_____	(____)_____	_____
Retaining Walls	_____	_____	_____	(____)_____	_____
Other	_____	_____	_____	(____)_____	_____

ONCE BUILDING PLANS ARE APPROVED FOR PERMIT, PLEASE SUBMIT DIGITAL COPIES OF DRAWINGS in pdf file format FOR OUR OFFICE RETENTION RECORDS